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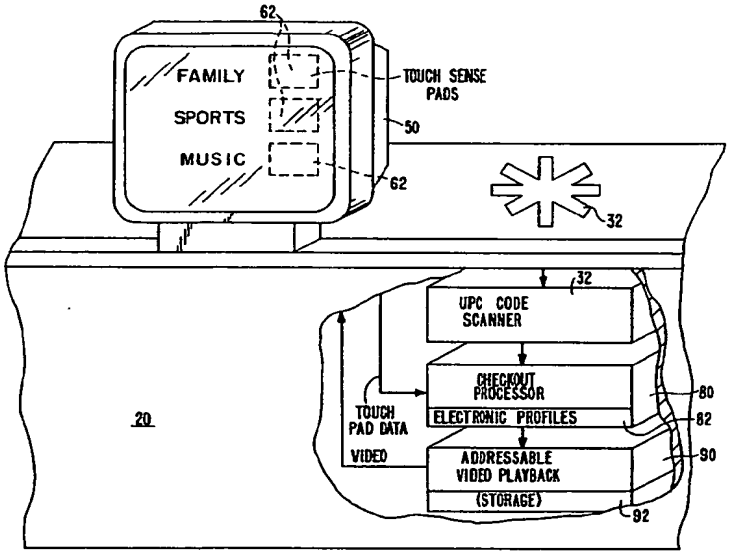
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(54) Title: INDIVIDUALIZED PROMOTIONAL PROGRAMMING



(57) Abstract

An individualized promotional programming network has a number of retail establishments (78), each including at least one checkout station (20) operable to identify products presented by a customer for purchase. An audiovisual display (50), preferably with moving picture video, is disposed at the checkout (20) and viewed by the customer. Varied programs can be displayed, at least some of their subject matter relating to product promotion. An input device (62) such as a touch screen allows the customer to input preferences. Programs are selected for display based on the customer preferences, a stored customer profile, and the identity of the products, the profile being updated as needed. The profile can be modified and/or updated in view of the nature of the products presented for purchase, which are typically scanned for UPC codes.

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INDIVIDUALIZED PROMOTIONAL PROGRAMMING

Background of the Invention

1. Field of the Invention

This invention relates to the field of promotional presentations associated with retail checkout counters and the like, and in particular to a network of video promotion devices having a plurality of entertaining and/or informative programs which are played selectively. The selection of specific programs is based upon profiles which identify products likely to be of interest to the particular customer. An "electronic marketing profile" for this purpose is developed from customer preferences as indicated directly by the customer and also by the character of products which the customer buys. The electronic marketing profile preferably includes a description of the particular customer, for example income range, household size, whether the customer has children or pets, etc., and can be built up further with information collected as to the customer's product preferences. The profile information is stored in data files accessed by computer and correlated for example with a customer identity as input via an identification card.

2. Prior Art

It is known in the art to provide a video terminal at a retail checkout counter or the like, and to provide a video program which displays a preset screen inviting the customer at the checkout to take advantage of some product or service available from the retailer or an associate of the retailer. Such displays are of interest to the customer as they publicize promotional opportunities, and also can be educational or even entertaining while waiting for an order to be passed through the checkout, e.g., while the individual products to be purchased are scanned for uniform product code labels or the like. However, such promotional programs can also be boring or even obnoxious, particularly when the customer is not at all interested in the type of product or service being promoted.

Promotional video programs can be used in connection with automated checkout systems, for example shown on a video monitor

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associated with an automated checkout of the type disclosed in U.S. Patent 4,676,343 - Humble. Instructions to the customer in operation of the automated checkout are displayed on a video terminal associated with the automated checkout, and the terminal is available to promote products during the time the checkout counter is operative. The automated checkout system can be made operable to offer the customer coupons or similar promotional incentives which coupons or promotions relate in a logical manner to the product which the customer has selected, and which are currently being scanned by the automated checkout system. For example, when a customer's product selection as scanned includes certain associated food products of a known dish (e.g., spaghetti and tomato sauce), the system can be programmed to offer promotions as to additional products which relate to the dish (e.g., grated parmesan cheese, garlic bread, red wine, etc.). The same relational promotion technique can be useful as to various types of related products, and is not limited to foods (e.g., shampoo:conditioner; paints:dropcloths; sweaters:skirts, etc.). The relations can be direct relationships, indirect relationships or even humorous ones (e.g., snow shovels:liniment), limited only by the imagination of the retailer or manufacturer.

The promotional opportunities available in a coupon-offering automated checkout are preset, and the display of a particular screen showing a promoted product or service does not vary. While it might be possible to change the promotional display frequently during a transaction and to change the content of particular promotions on a daily or weekly basis as a means to keep the customer's interest or to promote the sale of different products, this can be rather time consuming. Retailers have found automated checkout systems useful because it is not necessary for a human employee to attend to them. The retailer cannot be bothered with the additional overhead which would be necessary to keep all the available incentive offerings or displays thereof fresh and new. The promotional displays would have to be made, at some expense, selected for logical relationships, loaded, unloaded, etc., which is too much to ask of a retailer who is interested in efficient use

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of labor resources. Whether the checkout is automated or at least partly attended by a checkout operator, the retailer would prefer that the operator's equipment reduce rather than expand the operator's duties.

The most familiar form of product promotion is a television broadcast commercial. This form of promotion, however, has not been used in promotional displays of automated checkouts and the like. There is a problem with managing the extent of information which is needed to provide a promotional display in video form that is individualized as suggested. Although automated checkouts are known with a video output for instructing the consumer (e.g., stored on a videotape loop or on a CD ROM disk), it is not practical to provide an automated checkout that has sufficient memory capacity to handle substantial variation in the content of promotions. As a result, the promotional displays take the form of one or several static screen displays relating to the promoted product or service, perhaps with a touch screen input means allowing the customer to select printing of a coupon or the like.

There is a need to individualize promotions to keep the customer's interest and to provide a more extensive display that need not be limited to promotions, but also can include more entertainment oriented programming. The entertainment oriented programming should also be individualized, by manual selection of the customer, by automatic selection based on the customer's profile and desires, or both. The present invention satisfies this need using a plurality of video promotional messages having the look and feel of broadcast television commercials, and also includes entertainment programming in the form of short "programs" relating to customer selections as input or determined by analysis of buying pattern. This is accomplished using a retail video network which broadcasts a number of programs to a plurality of stores. The automated checkout is programmed to play full video programs of short duration, linked logically to the customer's profile as well as to the character of products selected by the consumer, the product identities being entered as the products are

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scanned, and also relating to customer desires, as input using a touch screen video input.

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Summary of the Invention

It is an object of the invention to facilitate entertaining and promotional programming in connection with an automated checkout system, in a manner that customizes the subject matter of the programming to the "electronic marketing profile" of the customer, including the preferences and buying habits of the customer.

It is a further object of the invention to provide a customized checkout promotion system wherein short programs can be selected from a library of programs stored locally but available for downloading from a centralized source.

These and other objects are accomplished by a network for individualized promotional programming having a plurality of retail establishments, each including at least one customer checkout station operable to detect the identity of products presented by a customer for purchase. An audiovisual display, preferably a video display, is disposed at the checkout and viewable by the customer. Programs are displayed on the audiovisual display, including varied subject matter, at least some of which relates to promotion of the products. An input device such as a touch screen input allows the customer to indicate a selection. Programs are then selected for display based on the selection of the customer and the identity of the products. Entertainment and promotional program sections can be included in the display, for example with the entertainment chosen by the customer and the promotional material chosen based on a customer electronic profile as well as the present buying profile developed from the nature of the products presented for purchase in conjunction with the electronic profile. The display is thus individualized for the customer with respect to entertainment preference, buying habits, shopping patterns, household characteristics, income level, etc. The network can include a plurality of subscribing retail establishments to which the programs are broadcast on a regular basis, the individual establishments storing the programs for customized display to their customers as desired and as appropriate to the type of establishment concerned.

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Insofar as the customer profile is stored for computerized access, the information can be stored centrally and accessed by means of a customer identity code or the like. This code can be carried on a data card or entered by the customer or by an operator. It is also possible to provide a "smart card" having an on-board memory and/or processor which uploads the customer identity data. At least a part of the customer profile data can also be stored on such a data card.

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Brief Description of the Drawings

The invention is explained herein with reference to an exemplary embodiment as shown in the drawings. It should be understood that the invention is capable of embodiment in other specific forms in accordance with the novel features of the invention as defined in the claims. In the drawings:

Fig. 1 is a block diagram illustrating the elements of the invention;

Fig. 2 is a plan layout of a retail establishment according to the invention; and,

Fig. 3 is a perspective view of a checkout including the display apparatus of the invention.

Detailed Description of the Preferred Embodiments

An apparatus for individualized promotional programming, as shown in Figs. 1-3 of the drawings is associated with a customer checkout station 20. The checkout station 20 can be of a type attended by a cashier or the like, or can be part of an automated checkout system (i.e., a checkout system attended only by the customer and provided with product scanning and security aspects). The checkout system 20 in any event includes means for identifying products presented by a customer for purchase. Such means may include a laser scanner 32 for detecting uniform product code (UPC) barcode labels on the products, or other means such as a keyboard 34 for manual entry of product identifications in the event of an attended checkout station. The identities of the products presented by the customer are used to control the character of the display program presented to the customer on an audiovisual display apparatus 50 disposed at the checkout 20 and viewable by the customer.

The display program has the dual functions of entertaining the customer while waiting in line at the checkout, and promoting products available through the retailer or through an associate of the retailer. The customer is attuned at the checkout to the comparative values of products. By providing both a selection capability and a means for limiting the display to items for which the customer demonstrates a preference, the invention provides a useful service as well as an effective promotional tool.

A plurality of programs including entertainment segments 72 and product promotions 74 are developed and stored for display on the audiovisual display 50 associated with each checkout 20. The programs can include varied subject matter, at least some of the subject matter relating to promotion of the products which the retailer offers for sale, or perhaps products of other merchants or groups with whom the retailer enjoys a relationship whereby the respective merchants' products are to be promoted.

The identities of the products passing the checkout 20 are detected by the checkout apparatus in accumulating a balance due the retailer from the customer. According to the invention, the

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product identities also are used in conjunction with the processor 80 operating the checkout 20 to develop or update a customer profile from a plurality of possible profiles 82, to thereby characterize the customer with respect to classes of products or types of entertainment in which the customer is likely to be interested. The profile can be general or detailed, and depending on the number and identity of particular products detected, it often is possible to develop a very specific idea of the customer's interests. For example, a customer purchasing baby food is quite likely to be interested in other types of baby products, whereas a customer purchasing a more staple item such as milk may be less easily classified. Furthermore, the customer profile develops as the more and more of the products presented by the customer are scanned and identified. Alternatively, or in addition, the processor 80 can store historical data on individual customers who are identified as part of the transaction.

Preferably, an electronic marketing profile is maintained for each customer, the customer's profile being correlated to an identity code. The identity code, as well as at least part of the customer's profile information, can be stored on a customer card such as a "smart card" having an on-board processor and/or memory accessed when the card is engaged in a reader. Information on the customer's situation as affecting buying preferences is stored in the profile, for example the customer's income range, household size, whether or not the customer has children or pets, etc., can be encoded and referenced, either in a central file or a customer carried file. The profile preferably can be updated to reflect more specific information over time, or to reflect changes in preference, by duly noting the character of the products presented by the customer for purchase.

At least one input means 62 preferably is provided for the customer's use at the checkout station 20 whereby the customer manually can indicate a selection from alternatives presented to the customer by the apparatus of the invention. The customer's selection provides a further means for classifying the customer with respect to likely interests and likely products of interest,

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at least at the present time. Preferably, the audiovisual display 50 is used to present the alternatives to the customer in the form of available promotional video programs similar to television commercials, often including a demonstration of the product, information as to its cost and explaining any promotional opportunities available. The display 50 may prompt the customer to select among specific alternatives as shown in Fig. 3, or may invite the customer to enter some form of information which further classifies the customer (e.g., responses to questions as to gender, age, status or interests).

The displayed program is preferably not limited to promotional information. Entertaining programs can be included as well, in a variety that enables a range of choices. The customer's choices can provide an information input that further classifies the customer as to promotional opportunities and products which the customer may find interesting. According to a preferred embodiment of the invention the display is operable to prompt the customer to choose between alternative forms of entertainment that tend to classify the customer, such as sports vs. music vs. children's programming, etc. The customer's choices, as well as the nature of products which the customer has presented for purchase, tend to individualize the customer as to age, gender, family status and interests.

A processor 80 or the like, preferably the same processor which controls the scanning and accounting functions of the checkout station, is coupled to the customer selection input and includes a memory arranged to store information on the identity of products presented for purchase. The processor 80 selects one of the plurality of programs 72, 74 as a display program, based on at least one of the selection entered by the customer and the identity of the products, and triggers the audiovisual display to present the display program on the audiovisual display from the plurality of programs to the customer.

In one embodiment, the audiovisual display 50 is operable to present to the customer a subset of the plurality of programs as the alternative selections. The alternatives can be classified and

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the customer invited to choose a classification. Some examples, as noted above, can be sports, music, children's programs, etc. Alternatively, specific titles can be presented to the customer. The particular program selected is based upon on one or both of the selection made by the customer and the identity of products presented for purchase. For example, one of the selection and the identities of products (or a profile developed therefrom) can limit the selection to a subset of the available programs and the other of the selection and the identities can be used to select the particular display program from the subset.

The plurality of programs subject to selection preferably include both promotions of products (i.e., short commercials) and entertainment programs. The commercials can be interspersed in the entertainment programs to build a display program from a combination of the entertainment and promotional segments. In that case, for example, the customer selects a class of entertainment subjects using the input means. The type of program selected and/or the identities of products presented are then used to insert promotional messages for products of a type likely to be of interest. These can be complementary to the products presented, or unrelated thereto except as to be of likely interest to a customer of the status, demographics or interests which are detected or input.

A switchpad or similar selection means 62 is operable by the customer for selecting among alternatives. The switchpad or the like preferably is coupled to processor 80 to develop a customer profile from said identity of the products, and to control the display device 50 to present alternatives and to play back available programs via playback means 90, wherein changeable storage media 92 stores the available programs. The display device 50 can include a touch sensitive screen input, with the processor operable to graphically indicate alternatives by positioning text, icons or other indicia behind the touchpad segments on the screen. The customer selects alternatives by simply touching the screen over the displayed alternatives, the position of the customer's finger being detected and compared to the displayed positions of

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the alternatives for making a selection. Selection can proceed through one or more levels, the display prompting the customer to choose first a general class and then to choose among alternatives therein.

The customized promotional arrangement according to the invention is preferably embodied in a network for individualized promotional programming. A plurality of retail establishments which subscribe to the network each include at least one customer checkout station 20 arranged as described above. Each has means 32, 34 for detecting the identity of products presented by a customer for purchase; an audiovisual display apparatus 50 disposed at the checkout 20 and viewable by the customer; means 92 for storing a plurality of programs for display on said audiovisual display; at least one input means 62 at the checkout station whereby the customer can indicate a selection; means 80, 90 for selecting one of the plurality of programs based on at least one of said selection of the customer and said identity of the products, and for triggering the audiovisual display to present a display program on the audiovisual display from the plurality of programs to the customer. In each case the audiovisual display 50 is operable to present to the customer a subset of the programs based upon on one of the customer's selection and the product identities. The programs include entertainment and/or purely promotional material, and preferably both. The processor or the like controlling the checkout chooses an appropriate display program from alternatives likely to be of interest to the customer as shown by the customer selection and/or the product identities.

The network of the invention preferably is a consumer oriented video information and entertainment network. A centralized station 70 as shown in Fig. 1 broadcasts the programs to a plurality of retail stores 78 (i.e., "storecasts" them) such as supermarkets and other mass merchandisers which have checkouts 20 equipped with scanners 32 for detecting the nature of the products presented for purchase. Customers view the programs while they are in the store shopping, or preferably while they are waiting during checkout. The programs can have the look and sound of commercial television

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broadcasting, but are tailored for the particular customer in the store.

Programming of interest to shoppers is compressed into small time segments suitable for viewing within the constraints of the retail shopping and checkout environment. Typically, a "program" consists of information or entertainment of 15 to 45 seconds, with interspersed advertising of 5 to 30 seconds. The programming can be sponsored, in general weaving the sponsor's message through the story line. Commercials can be related to the story as well, with both the story and the commercial being accommodated within a limited time frame.

The available programs can be downloaded from the centralized source 70, 72, 74, for example via satellite communication link 76 or a similar communication means, and changed periodically. The programs can be stored centrally at each retail store 78, for example at a central storage location 98 associated with a central processor 96 as in Fig. 2, for downloading to video playback means 90 at the checkouts 20. The selection and display are handled by at least one processor 80, 90. Therefore, it is possible to determine ratings on a store-by-store basis, and to change the channels offered to consumers automatically to reflect their popularity. In addition, through marketing profiles developed from the customer selections and products presented for purchase, different consumers have a different selection of programs offered for choice. Accordingly, consumers in different checkout lanes can view different programs, and even the same consumer is offered a different selection when purchasing goods of different character. This flexibility and consumer profiling allows for a broad range of target advertising wherein the products of interest to some consumers and not others will be promoted only to the consumers who are interested in them.

The customers come into contact with the terminals 50 while they shop (where selections are necessarily not determined by the products selected for purchase), and at the checkout 20 (where scanning the products permits development of a consumer profile). The audiovisual display (e.g., video terminal 50) remains in a

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default mode when not in use by consumers. While in the default mode, the video terminal offers and/or plays back the available programs, and in this mode may intersperse commercial messages randomly. To activate the terminal 50 to display a selection, the customer touches the screen or other input device 62. Once activated, the consumer controls the program displayed, for example by touching the screen at a sensing location or by operating an input device apart from the screen. Preferably, the display is operated in conjunction with the checkout 20 and includes a space used to show the price and a description of items being scanned by the checkout scanner 32 and used by processor 80 to accumulate a balance due the retailer for the sale. The checkout can be wholly automated, or attended by a clerk operating the scanner 32 or a keypad 34.

Inasmuch as the consumer and the checkout system together select the display offered to the consumer, the consumer is able to choose material in which he or she is interested; however, the display is nevertheless tailored to the consumer based on a marketing profile which provides a subset of available alternatives including the alternatives which the merchandiser considers appealing to the particular consumer. These benefits are provided in conjunction with the usual functions of the checkout, i.e., display of price and description of scanned products, subtotals, totals, coupon credits, etc.

The consumer may be uninterested in a particular program selected for display. Accordingly, the input means operable by the consumer remains operative during display of a program. The consumer can thus change to a different program, as desired. Preferably the system does not change a program once initiated, but as checkout proceeds, the consumer's marketing profile becomes more developed as additional products are scanned, enabling the system to more accurately assess the consumer's interests over time. In this manner, the alternatives offered to the consumer for new selections will change as checkout proceeds.

The invention involves both an apparatus for use in a retail establishment (preferably a network of retail establishments) and

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a method for individualized promotional programming. The method includes producing a plurality of video programs having subject matter relating to products on sale, detecting at a checkout station of the retail establishment products presented by a customer for purchase, selecting a display program from among the plurality of video programs a program relating to one of the customer and the products detected, and playing the display program to the customer during checkout procedures at the checkout. The customer's preferences limit the selection of video programs available as the display program, as does a profile developed from one or both of the customer's preferences and the products presented for purchase. The selected programming preferably includes an entertainment program and a promotional program, at least the promotional program relating to products on sale at the retail establishment or to be promoted by the retail establishment by agreement.

Operation of the retail video network of the invention requires a production facility 70 to prepare recorded programs 72, 74, preferably short segment to be combined, a communication link 76 or other means to transport the video information to the retail establishment, at least one processor 80, 96 in the store, and an interactive terminal 50 for operation by the customer. Preferably, in retail stores 78 having a plurality of checkouts 20, a centralized store processor 96 and a store network are provided, in data communication with processors at the individual checkouts and operable to provide the checkouts with video programming on demand from a changeable storage media 98, or as downloaded for storage at local storage means 92, accessed by a playback apparatus 90 at the checkout.

Although the system could be operated by a single retailer, the system is usefully embodied as a full, preferably national, network of subscribing retailers, participating sponsors and, of course, customers. Programming is communicated to the customers in one of the following ways. Programs can be created by various parties in much the same way as conventional television programs are created. Sponsors for the programs are recruited, and a group

of sponsored messages and sponsored programs are collected and displayed in a cycle or displayed for a period of time and then replaced by new programs and/or messages. This package of programs is preferably provided to subscribing retailers in bulk, for example in video disk format.

Alternatively, programming can be provided by transmission to stores periodically via satellite 76, or by other means. The programs are stored on a central memory device 98 in the store. Each store preferably has a central processing unit 96 that services the respective checkouts 20 in the store 78. The central processor 96 taps into the central memory device 98 to obtain the stored programs 72, 74, for example when selected by a customer, and downloads the programs to the respective checkouts 20, where the programs are displayed to the customers. This can be accomplished simultaneously with the request of the customer (and/or the demand for a particular program by a local processor at the checkout based upon customer profile information), or a set of such programs can be downloaded to a storage means 92 associated with the local checkout station or a group of stations, from which the programs are read out to the display units 50 viewed by the customers. One or more such display units 50 can be associated with each checkout, or placed at other convenient locations in the store. This arrangement allows the programs displayed to be wholly or partly individualized for the customers. Different programs can be displayed to different customers in different checkout lanes, to different successive customers in a given checkout lane, etc.

According to one embodiment of the invention the respective programs are broadcast to a plurality of said retail establishments, in much the same manner as television programs. However, the programs are short, and either are repeated on a particular channel or played sequentially together with other programs having a common theme and/or appealing to the same classification of consumer, whereby the system need only select the channel to be displayed. Similarly, the commercial insertions in the program, which preferably are even shorter than the short programs, can be carried on individual channels as separated by the

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classification or "electronic profile" of the consumers who are likely to be interested, or who have indicated an interest, in the subject matter of the programs and commercial insertions. In this embodiment the apparatus at the retail establishment receives and reproduces the programs on a real time basis, without the need for storage sufficient to retain and address the entire program when required.

In the embodiment including a changeable media 92, 98 for storage of program data to be selected and displayed to the customer, the format of the data can be video signals and the media of storage can be CD ROM disks, with addressing means under control of at least one of the checkout processor 80 and a central processor 96 of the retail establishment, operable to select and play the desired program in response to input data from the customer and from the detected identity of the customer's products presented for purchase, and from the customer's indicated preferences.

The process of detecting the customer preference includes display of a plurality of alternatives, for example on a touch sensitive screen 62 and monitoring a customer operable switch input (e.g., detection of the customer's finger at an X-Y position corresponding to the displayed alternative, by a touch sensitive screen overlay or other means), to determine said preference.

The invention having been disclosed, a number of alternatives will now be apparent to persons skilled in the art. Reference should be made to the appended claims rather than the foregoing disclosure of exemplary embodiments in order to assess the scope of the invention in which exclusive rights are claimed.

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I claim:

1. A method for individualized promotional programming, comprising the steps of:

producing a plurality of video programs having subject matter relating to products on sale at a retail establishment;

detecting at a checkout station of the retail establishment products presented by a customer for purchase;

selecting a display program from among the plurality of video programs a program relating to one of the customer and the products detected;

playing the display program to the customer during checkout procedures at the checkout.

2. The method according to claim 1, further comprising determining a preference of the customer and limiting the plurality of video programs among which the display program can be selected, based upon said preference.

3. The method according to claim 2, comprising selecting the display program to include an entertainment program and a promotional program, at least the promotional program relating to the products.

4. The method according to claim 3, comprising storing the plurality of programs on a changeable storage media, whereby the promotional programs can be reloaded.

5. The method according to claim 2, comprising broadcasting the programs to a plurality of said retail establishments, each said retail establishment including at least one said checkout.

6. The method according to claim 4, comprising broadcasting the programs to a plurality of said retail establishments, each said retail establishment including at least one said checkout, the programs being received and stored on said changeable media.

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7. The method according to claim 4, wherein the programs are video programs and wherein said changeable media includes CD ROM storage of the programs.

8. The method according to claim 2, wherein said detecting of the customer preference includes display of a plurality of alternatives on the touch sensitive screen and monitoring a customer operable switch input to determine said preference.

9. The method according to claim 2, wherein the audiovisual display includes a touch sensing screen, and wherein said detecting of the customer preference includes display of a plurality of alternatives on the touch sensitive screen and monitoring the touch sensitive screen to determine said preference.

10. An apparatus for individualized promotional programming, comprising:

a customer checkout station including means for detecting identity of products presented by a customer for purchase;

an audiovisual display apparatus disposed at the checkout and viewable by the customer;

means for storing a plurality of programs for display on said audiovisual display, the programs including varied subject matter, at least some of the subject matter relating to promotion of the products;

at least one input means at the checkout station whereby the customer can indicate a selection; and,

means for selecting one of the plurality of programs based on at least one of said selection of the customer and said identity of the products, and triggering the audiovisual display to present a display program on the audiovisual display from the plurality of programs to the customer.

11. The apparatus according to claim 10, wherein said audiovisual display is operable to present to the customer a subset of said plurality of programs based upon on one of said selection

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and said identity, said one of the plurality of programs being chosen as a function of the other of said selection and said identity.

12. The apparatus according to claim 11, wherein the plurality of programs include promotions of products and entertainment programs.

13. The apparatus according to claim 12, wherein the promotions of products and the entertainment programs are interspersed in the selected program.

14. The apparatus according to claim 10, wherein said selected program includes a combination of an entertainment program and at least one promotional program relating to at one of said products, and wherein the means for selecting is operable to select the entertainment program based on the selection of the customer and to select the promotional program based on the identity of the products.

15. The apparatus according to claim 10, wherein the means for selecting includes a processor operable to develop a customer profile from said identity of the products, and wherein the display program is selected as a function of the profile.

16. A network for individualized promotional programming, comprising:

a plurality of retail establishments, each including at least one customer checkout station having means for detecting identity of products presented by a customer for purchase;

an audiovisual display apparatus disposed at the checkout and viewable by the customer;

means for storing a plurality of programs for display on said audiovisual display, the programs including varied subject matter, at least some of the subject matter relating to promotion of the products;

BNSDOCID: <WO___9316443A1_I_>

at least one input means at the checkout station whereby the customer can indicate a selection;

means for selecting one of the plurality of programs based on at least one of said selection of the customer and said identity of the products, and triggering the audiovisual display to present a display program on the audiovisual display from the plurality of programs to the customer;

wherein said audiovisual display is operable to present to the customer a subset of said plurality of programs based upon on one of said selection and said identity, said one of the plurality of programs being chosen as a function of the other of said selection and said identity.

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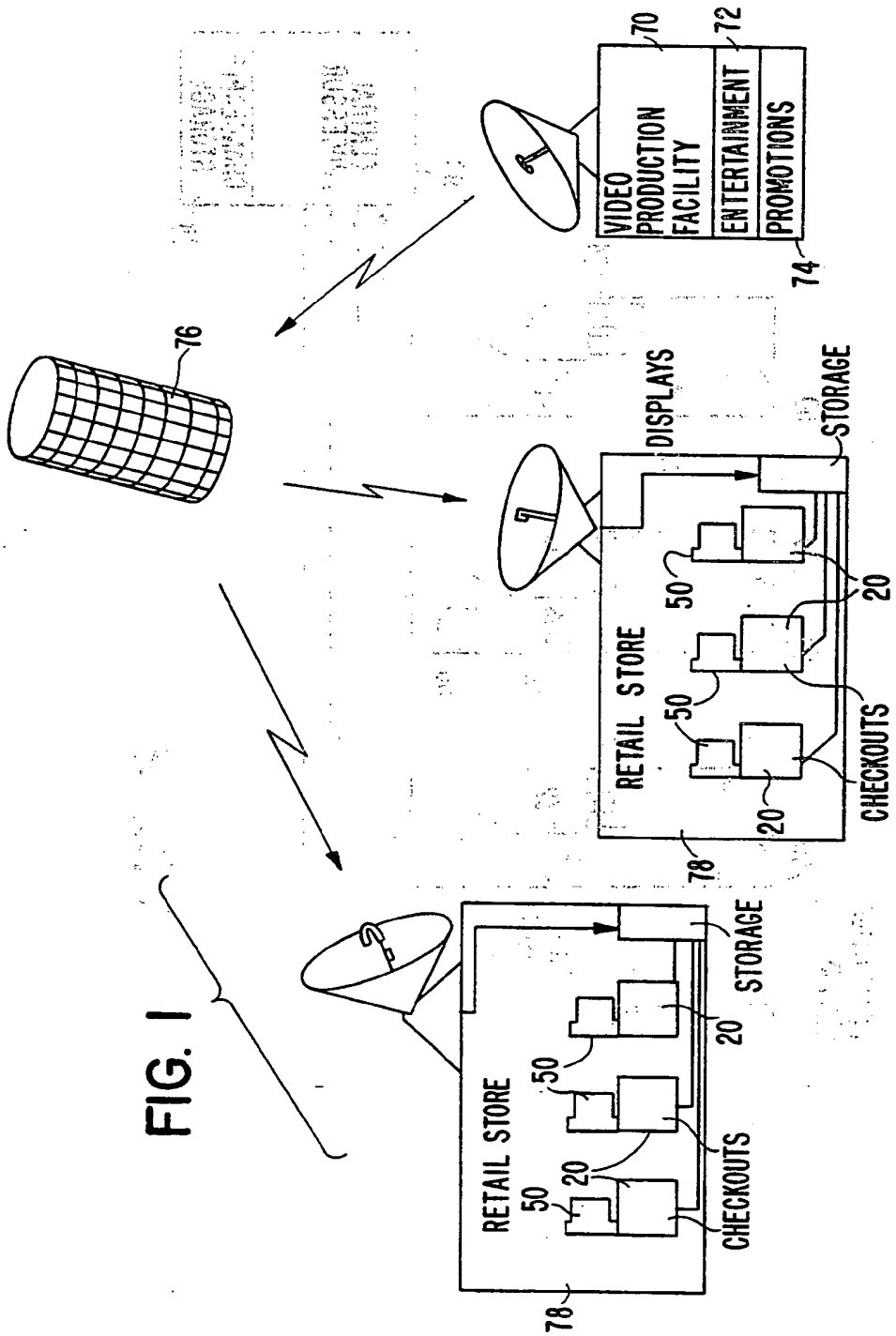


FIG. 1

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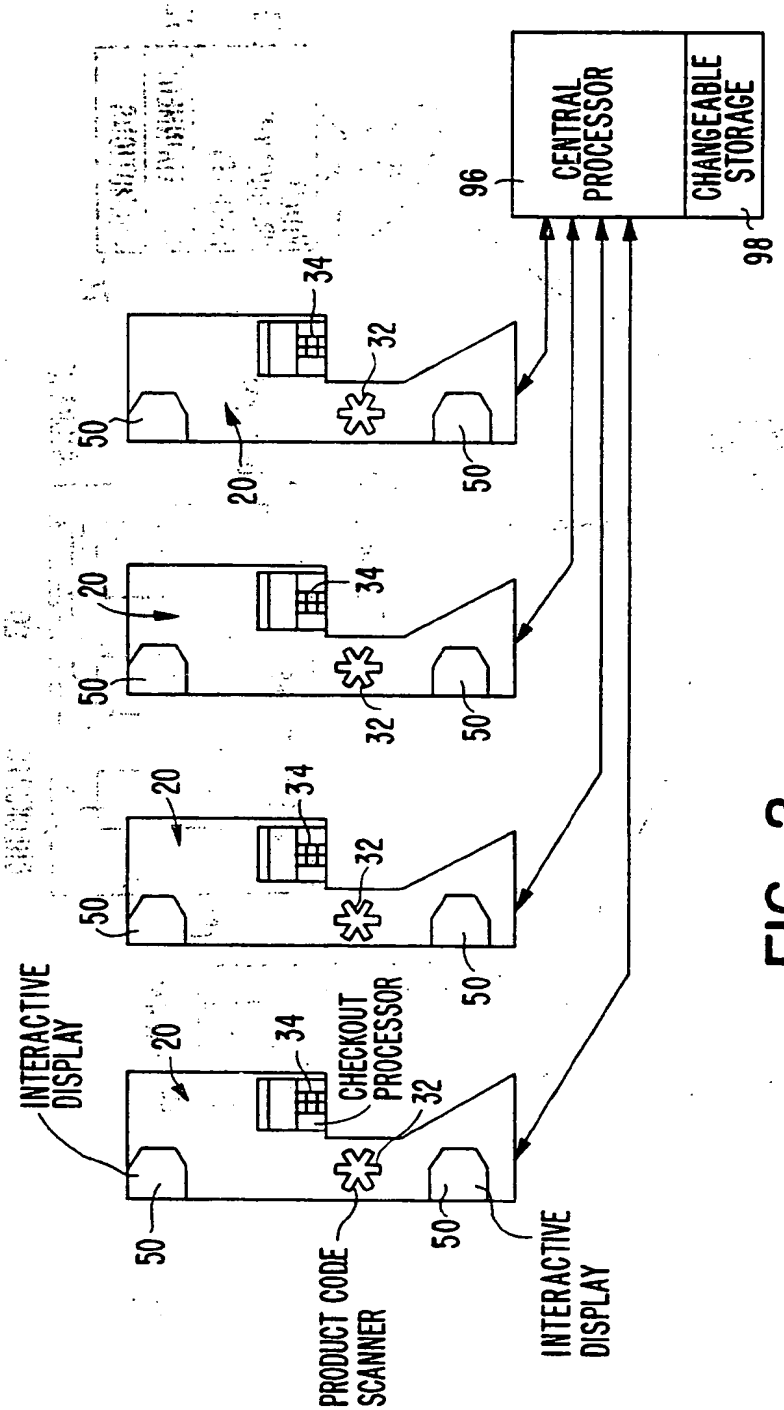
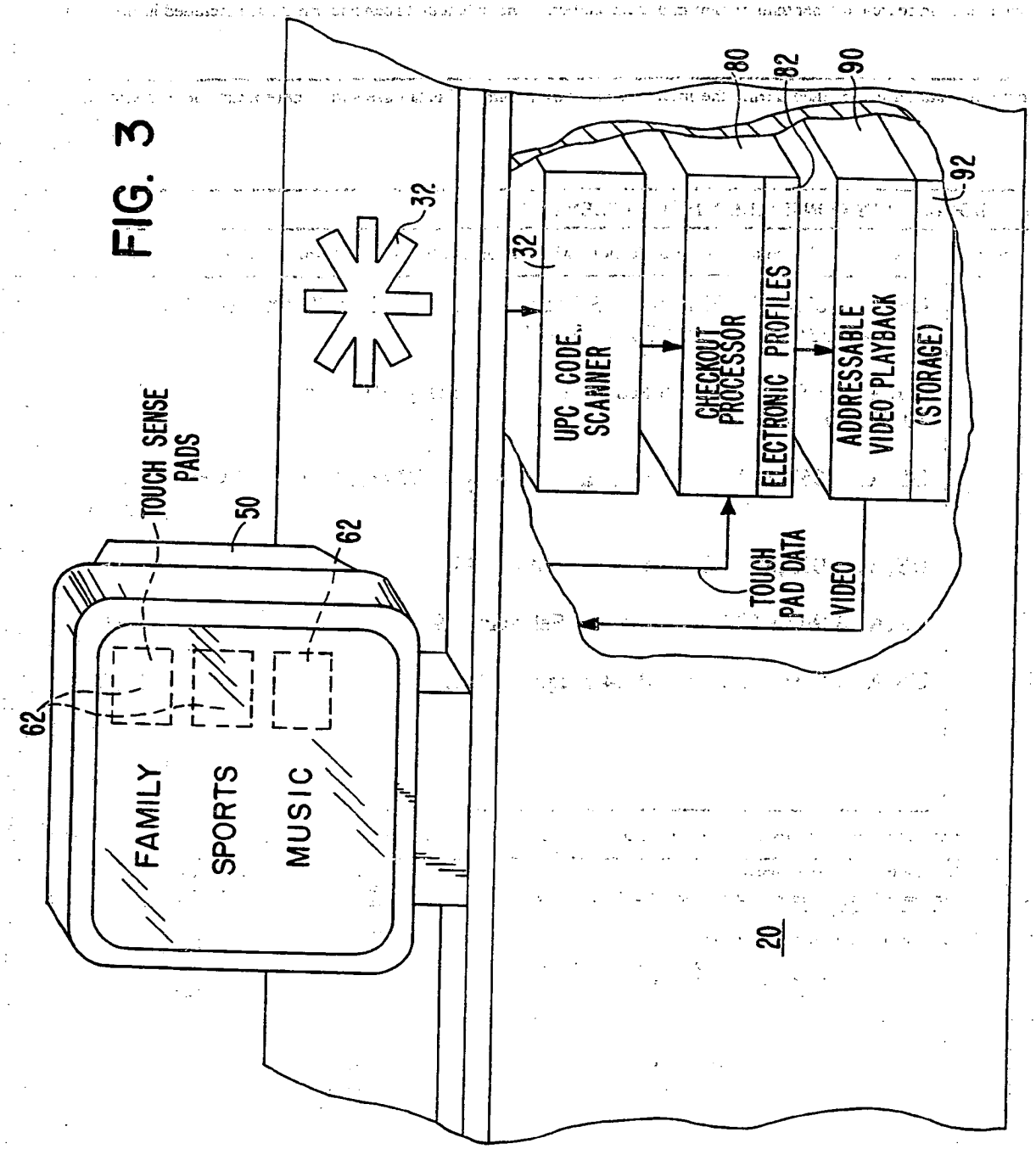


FIG. 2

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FIG. 3



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INTERNATIONAL SEARCH REPORT

Int tional application No.
PCT/US93/01379

A. CLASSIFICATION OF SUBJECT MATTER

IPC(5) :G06K 15/00; G06F 15/21
US CL :235/383;186/61;358/102
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 186/52;235/375;358/93.83

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	US,A, 4,833,308 (Humble) 23 May 1989 col. 1, line 49-58; col. 2, lines 45-53; col. 3, line 33-42,51-61.	1 2-16
Y	US,A, 4,982,346 (Girouard et al.) 01 January 1991 col. 16, lines 40-47, col. 5, lines 2-9.	2-16
Y	US,A, 4,667,802 (Verduin et al.) 26 May 1987 col. 2, lines 54-65.	3,4,6,7 12-14
A	US,A, 5,013,896 (Ono et al.) 07 May 1991.	1-16
A	US,A, 4,992,940 (Dworkin) 12 February 1991.	1-16
A	US,A, 4,949,187 (Cohen) 14 August 1990.	1-16

[X] Further documents are listed in the continuation of Box C. [] See patent family annex.

*	Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be part of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E"	earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search 20 MARCH 1993	Date of mailing of the international search report 18 MAY 1993
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. NOT APPLICABLE	Authorized officer BRYAN S. TUNG Telephone No. (703) 305-4873

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INTERNATIONAL SEARCH REPORT

In ...national application No.
PCT/US93/01379

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	US,A, 4,736,256 (Ichikawa) 05 April 1988.	1-16
A	US,A, 4,676,343 (Humble et al.) 30 June 1987.	1-16
A	US,A, 3,757,037 (Bialek) 04 September 1973.	1-16
A	DE,A, 3,239,681 (Van Berkels) 03 May 1984.	1-16
A	IBM Technical Disclosure Bulletin, "Grocery Buggy", vol. 31 no. 6 Nov. 1988 p. 399-400.	1-16

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